

REMARKS

This Amendment, filed in reply to the Office Action dated July 27, 2006, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-16 are all the claims pending in the application.

I. Claim Rejections under 35 U.S.C. § 112

Claims 10-16 stand rejected under 35 U.S.C. § 112, first paragraph, for containing a single "means" element. Claim 10 is amended and thus the rejection is believed to be obviated.

Claims 1-16 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to provide antecedent basis for certain features. Applicant hereinabove amends the claims to correct these formalities.

II. Claim Rejections under 35 U.S.C. § 103

Claims 1-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kano et al. (U.S. Patent No. 5,359,513) in view of Jatko ("Nonlinear filter derived from topological image features" SPIE Vol. 1295 Real-Time Image Processing II, Published in 1990, pages 8-16).

Applicant respectfully submits the following arguments in traversal of the prior art rejections.

Applicant's invention relates to an image processing technique. Detailed descriptions of the background and exemplary embodiment of the invention are set forth in the Appeal Brief at page 6. Similarly, Kano is described in the Appeal Brief at pages 8-9. Applicant refers the Examiner to these descriptions.

Further to these descriptions, Applicant submits that Kano is directed to evaluating a difference between medical (chest) images. One skilled in the art would understand that chest images are difficult to reproduce with consistency due to variations in patient positioning, x-ray projection, respiration and cardiac pulsation. Kano, col. 1, lines 52-57.

Turning to the newly cited art, Jatko relates to an inspection device for determining misregistrations that occur in printing device outputs as distinguished from print defects. In this connection, Jatko suppresses the misregistration errors that occur at known edge portions of a reference image. The method of Jatko relies on the assumption that the topology for a reference image is fixed for all acquisitions. The spatial relation of correcting coefficients $w(x)$ with respect to the reference is set by the magnitude of each element in proportion to its distance from an expected edge. See Equation 5 and preceding paragraph. Furthermore, as an example, it is determined that if an aberration is more than three standard deviations away from an expected edge position, it is determined to be a defect. Page 10, first two full paragraphs. Otherwise, it is considered a misregistration. Such misregistration are subject to filtering. Page 10, last two lines.

The Examiner apparently concedes that Kano fails to teach enhancing the substantial difference between images relative to misalignment artifacts as described by independent claim 1.¹ The Examiner cites Jatko to make up for this deficiency. Applicant submits that the rejection is not supported for at least the following reasons.

¹ To the extent the Examiner continues to contend that Kano teaches the enhancement of substantive difference as claimed, arguments of record indicate that Kano fails to emphasize an inter-image difference relative to an artifact. See Appeal Brief. Because the Examiner has subsequently
...(footnote continued)

As an initial matter, one skilled in the art would not refer to Jatko for purposes of image enhancements as described in Kano. Jatko relates to a fundamentally different type of analysis than Kano and the present invention. More specifically, Jatko relates to analysis of individual print structures. Such print structures, e.g. a printing plate, has a known configuration which can serve as a consistent point of reference. In fact, Jatko specifically relies on this consistency as a basis for assessing misalignment. By contrast, medical imaging does not lend itself to a constant reference point due to patient positioning, respiration and cardiac effects. Therefore, the references are not directed to the same field of endeavor. Moreover, the problems occurring in medical imaging differ sufficiently from print inspection that one skilled in the art of the present invention would not turn to the teachings of print structure analysis.

In addition, it is noted that the images of independent claim 1 comprise two or more images of the same subject. It is the interimage difference image of these two images (of the same subject) that are subject to image processing. By contrast, assuming *arguendo* that Jatko can be combined with Kano, their combination does not teach each feature of the claim. In Jatko, the interimage difference process is performed on a reference image and a target image. The reference relates to a fixed, constant image which is distinguishable from the target being evaluated for print structure defects. Therefore, Jatko does not perform analysis of interimage differences of the same subject but on two different subjects.

Stated differently, the claim requires an interimage difference to be 1) subject to image processing and also 2) to be images of the same subject. There is a duality in the interimage

withdrawn any anticipation rejection over Kano, it is believed that the Examiner agrees that Kano does not teach the enhancement as claimed.

difference. To the extent Kano can arguably process images of the same subject, it lacks the image (enhancement) processing as claimed. In contrast, to the extent Jatko can arguably provide enhancement, it is on images of two different subjects. The combination of references provides enhancement of an interimage difference of two different subjects. In fact, the operations of Jatko would be completely inoperable for analysis on a same subject because the interimage difference would always be substantially negligible due to the fixed and constant nature of a printing structure.

Therefore, claim 1 is patentable for at least this reason. Claim 10 is patentable for analogous reasons. The remaining claims are patentable based on their dependency.

Applicant adds claims 17-19 to describe features of the invention more particularly.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. Appln. No. 09/800,773

Attorney Docket No. Q61190

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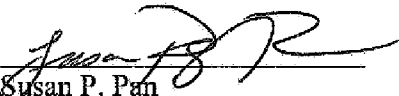
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Date: January 26, 2007